REMARKS

Claims 1-3, 5-7, 9, 10, 12-14, 16-18, 20 and 21 are pending. Claims 4, 8, 11, 15, 19 and 22 have been canceled. Reconsideration of the present application is respectfully requested in view of the amendment filed on February 14, 2003 (the previous amendment) and further in view of the attached declaration and the following remarks.

Form PTO-1449

In numbered paragraph 6 of the final office action dated 5 December 2003, the objection to the PTO-1449 filed on 13 July 2000 is withdrawn. However, the applicants did not receive an initialed copy of that PTO-1449. A new copy of that PTO-1449 is being attached to this response for the examiner's convenience. The applicants respectfully request that an initialed copy of the attached PTO-1449 be returned at the earliest opportunity.

The Finality of the Rejection

The latest office action, which was mailed on 5 December 2003, was made final. However, the MPEP 706.07(a) states the following:

> "Under present practice, second or any subsequent actions on the merits shall be final, except where that examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment to the claims nor based on information submitted in an information disclosure statement . . . "

The examiner introduced new grounds of rejection in the office action of 5 December 2003 that were not necessitated by applicants' amendment. For example, in the most recent office action, claims 6, 7, 17, and 18 are rejected under section 103 in view of Bozada et al. and Kobayashi et al. However, this rejection does not appear in any earlier office action, including the one mailed on 8 July 2003, to which no response was filed by the applicants. Thus, this is a

new ground of rejection. The new ground of rejection was not necessitated by an amendment to the claims by the applicants. It appears that the new ground was necessitated by the applicants' declaration under 37 CFR 1.131, which showed a date of invention prior to the Huang patent. However, according to the language of MPEP 706.07(a), making such a rejection final is improper, since the new ground was not necessitated by applicants' amendment to the claims.

Further, in the office action of 5 December 2003, claim 2 and others were rejected for the first time on the grounds of Bozada et al. and Kobayashi et al. and further in view of Salmon et al, Beaunier et al, Dorlot et al and Schell et al. Thus, the finality of the office action of 5 December 2003 is improper. Again, this new ground was not necessitated by an amendment to the claims by the applicants. Rather, the new ground of rejection appears to have been the result of the applicants' declaration under 37 CFR 1.131.

In addition, while several of the rejections that appear in the most recent office action appeared in the office action of 8 July 2003, the applicants did not respond to the office action of 8 July 2003, and the office action of 8 July 2003 was replaced by the most recent office action. Therefore, the applicants have not had an opportunity to respond to the new ground of rejections introduced in the office action of 8 July 2003. In addition, the rejections in the office action of 5 December 2003 are different from those presented in the office action of 8 July 2003. Thus, there can be no assertion by the examiner that the grounds for rejections of the office action of 5 December 2003 are not new, since they were previously made in the office action of 8 July 2003.

In the paragraph that begins at the top of page 3 of the December 5 office action, the examiner states that "Applicant has enjoyed ample opportunity to make appropriate amendments to the claims, and/or bring up arguments against the previous rejections, including those raised in the last office action dated 06/18/2003." Apparently, this is the basis for making the office

action final. However, this basis does not comply with MPEP 706.07(a), as stated above. The question is not whether the applicants have had an ample opportunity to respond to the office action of 18 June 2003. The question is whether new grounds were raised that were not necessitated by an amendment to the claims by the applicants.

Since, in the final rejection of 5 December 2003, new grounds of rejection have been presented that were not necessitated by an amendment to the claims by the applicants, the applicants respectfully request withdrawal of the finality of the office action dated 5 December 2003.

The Objection to the Specification

In paragraph 7 of the office action, the specification was said to be objectionable for failing to specify the units of t in formula 2 of page 9, line 22. The specification makes it clear in several places, including Fig. 3, that the units of t are minutes. In addition, the paragraph that begins on line 24 of page 9 has been amended to make it clear that the units of t are minutes, as indicated by the graph of Fig. 3. No new matter has been added, since the units of t are indicated, among other places, in Fig. 3 and at line 4 of page 10. Claims 3, 10, 14, and 21 have been amended to recite that the units of t are minutes to further clarify the claims and to make the claims consistent with the specification. Withdrawal of this objection is respectfully requested.

35 USC 112 objections

It is unclear whether claims are being objected to or rejected in paragraph 9 of the office action. Section 112 is mentioned. However, claim objections normally do not rely on a statute. If a statute is relied on, a rejection is normally being presented. In any event, the examiner indicates a preference for stating that the constant a is "determined by" the atmosphere around the oxide film as opposed to "based on." Although the applicants do not necessarily understand

or agree with this objection, for expediency, the language of claims 3, 10, 14, and 21 has been changed to reflect the examiner's preference. The applicants respectfully request withdrawal of this objection.

In a later part of numbered paragraph 9, claims 3, 10, 14, and 21 were objected to for reasons that are not entirely understood by the applicants. The examiner seems to interpret claims 3, 10, 14, and 21 to say that b is actually measured. To the extent that this objection can be understood, it appears that the examiner is misinterpreting the claims.

The method is a method of correcting an erroneous measurement. The constant b is determined indirectly based on a measurement of apparent thickness. The invention of claims 3, 10, 14, and 21 is one in which a correction is made to a measured thickness. That is, y is known and b is determined from y. Claims 3, 10, 14, and 21 simply recite that the constant b represents the real thickness of the film in the formula. The examiner states "given that b is already known, why would anyone spend more time and energy for measuring the thickness - once again - using the Applicant's method?" However, none of claims 3, 10, 14, and 21 states or implies that b is already known. Therefore, the applicants respectfully request withdrawal of this objection.

Rejections Based on Prior Art

Claims 1, 5-7, 12, and 16-18 were rejected under 35 USC 103(a) as being unpatentable over the patent to Bozada et al. in view of the patent to Kobayashi et al. The applicants respectfully traverse this rejection for the following reasons.

The patent to Bozada et al. discloses growth of the natural oxide film when the substrate surface is exposed. Column 6, lines 19-36 states that it is known that the oxide film thickness increases logarithmically. However, this fails to suggest the limitations of claims 1, 5-7, 12, and 16-18. The present invention is based on the discovery that the film thickness appears to

increase logarithmically during a time in which it does not in fact increase. Bozada et al. fail to recognize this phenomenon. The information found in the patent to Bozada et al. thus could not have been useful in developing a method for taking more accurate measurements or of correcting measurements, in the manner claimed. In fact, the patent to Bozada et al. teaches away from the invention, since it merely states that the thickness of the film grows logarithmically. Thus, the patent to Bozada et al. teaches acceptance of optical measurements and fails to disclose or suggest the method of claims 1, 5, 12, and 16 and their dependents, which account for the phenomenon.

The patent to Kobayashi et al. is apparently relied on to show a washing step. A washing step is recited in claims 5 and 16. However, no washing step is recited in claims 1 and 12. Therefore, it is not clear why the patent to Kobayashi et al. has been used in combination with the patent to Bozada et al. to reject claims 1 and 12. The patent to Kobayashi et al. fails to disclose or suggest the claimed method of timing optical thickness measurements.

Claims 2, 3, 9, 10, 13, 14, 20, and 21 were rejected under 35 USC 103(a) as being unpatentable over the patent to Bozada et al. in view of the patent to Kobayashi et al. and further in view of the articles to Salmon et al., Beaunier et al., Dorlot et al., and Schell et al. Claims 2, 3, 9, 10, 13, 14, 20, and 21 are dependent claims, the base claims of which are discussed above. Claims 2, 3, 9, 10, 13, 14, 20, and 21 are considered to be allowable for the reasons given above with respect to their respective base claims. Nothing in the articles to Salmon et al., Beaunier et al., Dorlot et al., and Schell et al. supply what is missing in the patents to Bozada et al. and Kobayashi et al. That is, nothing in the articles to Salmon et al., Beaunier et al., Dorlot et al., and Schell et al. disclose or suggest a method of timing an optical thickness measurement or of correcting an optical film thickness measurement as claimed.

Clarification Amendments

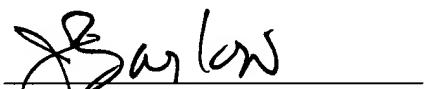
Claim 20 has been amended to correct an obvious error. Claim 20 was dependent upon claim 19, which has been canceled. Thus, claim 20 has been amended to depend on claim 16.

Several clarification amendments have been made to the specification, as indicated above under the heading "Amendments to the Specification." These amendments are to improve the wording of the description and do not involve new matter.

In view of the forgoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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